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10/608,410	06/30/2003	Amanda Giang-Tien Nguyen	MFCP.103203	8066

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EXAMINER
LETT, THOMAS J

ART UNIT	PAPER NUMBER
2625	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2003*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-33* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-33* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

1.   Claims 1-33 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims strongly appear to be directed to a non-statutory program that automatically configures network printers and/or retrieves/sends information. In addition, Examiner sees support in the specification at paragraph 0007, which reads: "Accordingly an improved technique is needed for network printer installation. In particular, a technique that eliminates manual configuration is desired. Automatic configuration could save the extensive effort involved in obtaining the correct feature set after installing a large number of network devices. Thus, users would have access to features available on the network devices automatically without any user or administrator intervention." It is therefore the Examiner's stance that the claims are merely directed to software constructs for automatically installing/configuring print devices without user intervention. A program (or software) is functional descriptive material, and is only statutory when embodied in a computer readable medium (see MPEP 2106). Applicant shows support for said programs with functions Examiner does not see any statutory support in the disclosure for the non-statutory program/syntax claims (see page 53 of the Interim Guidelines).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2.   Claims 1-9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contain subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicants claim a driver generating both a bi-directional request and a bi-directional response. Examiner understands a request or response to be in one direction (i.e., uni-directional) and originating from a requesting or responding device/user. A bi-directional request, for example, indicates a request traveling in opposing directions. It is not understood where the disclosure defines both a bi-directional request and a bi-directional response. Examiner understands a request to be sent from a machine to another entity, and that action may or may not result in a reply initiated from the entity directed towards the machine. Since Applicant describes a bi-directional request and a bi-directional response, Examiner asks Applicant to respond with the definition of both features so that Examiner can understand the claimed features. It is not clear if Applicant is claiming the **SendRecvBidiDataFromPort** function or program which supports bidirectional communication between an application and a printer or print server that can be implemented in a monitor server DLL or a port monitor server DLL.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3.   Claims 1-31 and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Sabbagh et al (US 6,814,510 B1).

Regarding claim 1, Sabbagh et al disclose a system (networked system of fig. 1) for automatic configuration upon installation of a network printer, wherein the network printer is associated with printer description files (data contained in printer manager 428, col. 5, lines 51-54), a driver (printer driver 462, col. 6, line 9) a spooler (print spooler 424, col. 4, line 65) and a port monitor (port monitor of fig. 4), the system comprising:

bi-directional application program interfaces (col. 2, lines 47-51) associated with the spooler for allowing the driver to generate a bi-directional request and a bi-directional response (col. 2, lines 60-65);

a syntax within the printer description files for representing and associating the bi-directional request and the bi-directional response with a print feature (printer ready, jammed, low ink level, col. 2, lines 61-63);

extension files stored in the driver (data contained in printer manager 428, col. 5, lines 51-54) for relating bi-directional values and printer values (printer ready, jammed, low ink level, col. 2, lines 61-63); and

a notification infrastructure (col. 5, lines 55-56) controlled by the port monitor for providing a bi-directional notification of configuration changes to the driver and selected applications (see Fig. 4).

Regarding claim 2, Sabbagh et al disclose a system of claim 1, wherein the notification infrastructure includes a drive printer event mechanism for informing the driver of a configuration change (printer change notification thread, col. 5, lines 55-56).

Regarding claim 3, Sabbagh et al disclose a system of claim 1, wherein the notification infrastructure includes a find next printer change notification (printer change notification thread, col. 5, lines 55-56) for allowing an application to monitor and receive configuration changes automatically (col. 2, lines 26-27).

Regarding claim 4, Sabbagh et al disclose a system of claim 1, wherein the syntax additionally comprises a plurality of keywords including a response type keyword for designating a bi-directional response type and a response data keyword for mapping between features of the network printer (fig. 6 shows the ability of a user to respond to a gui mapping of settings/features).

Regarding claim 5, Sabbagh et al disclose a system of claim 1, wherein the syntax provides tools for providing updates at a global level (settings may be replicated for each port, col. 5, lines 41-43), at an option level (fig. 5 shows enabling/disabling options), and at a feature level (updates to time intervals in Fig. 6).

Regarding claim 6, Sabbagh et al disclose a system of claim 1, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Regarding claim 7, Sabbagh et al disclose a system of claim 1, wherein the bi-directional application program interfaces provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 8, Sabbagh et al disclose a system of claim 1, wherein port monitor includes a mechanism for retrieving data (control flags) from a network printer database and for

accessing the extension files to transform the data (control flags are transformed into status information).

Regarding claim 9, Sabbagh et al disclose a system of claim 8, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 10, Sabbagh et al disclose a system (networked system of fig. 1) for facilitating client retrieval of bi-directional information upon installation of a network device, the system comprising:

a set of bi-directional constructs within a printer description file (see Fig. 5 for bi-directional construction in a port setup file);

a port monitor (port monitor of fig. 4) for receiving the bi-directional constructs, for retrieving data from the network device in accordance with the bi-directional constructs, transforming the data into an appropriate format (uses the LPR protocol which is capable of transforming file formats, see fig. 5), creating a channel (bi-directional settings, see fig. 6), and sending the transformed data (to printer); and

a spooler (print spooler 424, col. 4, line 65) including a mechanism for receiving installation notifications (printer change notification thread, col. 5, lines 55-56) over the created channel from the port monitor and routing the installation notifications to selected applications.

Regarding claim 11, Sabbagh et al disclose a system of claim 10, wherein spooler comprises a drive printer event mechanism (printer change notification thread, col. 5, lines 55-56) for informing a driver of a configuration change (printer change notification thread, col. 5, lines 55-56).

Regarding claim 12, Sabbagh et al disclose a system of claim 10, wherein the spooler comprises a find next printer change notification for allowing an application to monitor and receive configuration changes automatically (col. 2, lines 26-27).

Regarding claim 13, Sabbagh et al disclose a system of claim 10, wherein the set of bi-directional constructs includes a bi-directional query construct and a bi-directional response construct (col. 2, lines 60-65).

Regarding claim 14, Sabbagh et al disclose a system of claim 13, wherein the printer description file comprises a plurality of keywords including a response type keyword for . designating a bi-directional response type and a response data keyword for mapping between features of the network printer (fig. 6 shows the ability of a user to respond to a gui mapping of settings/features).

Regarding claim 15, Sabbagh et al disclose a system of claim 14, wherein the bi-directional constructs and the keywords form a syntax providing tools for making automatic updates at a global level (settings may be replicated for each port, col. 5, lines 41-43), at an option level (fig. 5 shows enabling/disabling options), and at a feature level (updates to time intervals in Fig. 6).

Regarding claim 16, Sabbagh et al disclose a system of claim 10, further comprising independent hardware vendor extensions for enumerating specific features provided by a manufacturer (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Regarding claim 17, Sabbagh et al disclose a system of claim 10, further comprising bi-directional application program interfaces within the spooler for allowing transmittal of a bi-directional request and a bi-directional response (col. 2, lines 60-65).

Regarding claim 18, Sabbagh et al disclose a system of claim 17, wherein the bi-directional application program interfaces provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 19, Sabbagh et al disclose a system of claim 10, wherein the port monitor includes a mechanism for retrieving data (control flags) from a network printer database and for accessing extension files within a driver to transform the retrieved data (control flags are transformed into status information).

Regarding claim 20, Sabbagh et al disclose a system of claim 19, wherein the bi-directional application program interfaces provide a mechanism for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 21, Sabbagh et al disclose a method for automatically configuring a system upon installation of a network printer within the system, wherein the system includes printer description files (data contained in printer manager 428, col. 5, lines 51-54), a driver (printer driver 462, col. 6, line 9) a spooler (print spooler 424, col. 4, line 65) and a port monitor (port monitor of fig. 4), the method comprising:

getting a list of installable features (from printer list 458) and corresponding bi-directional requests (col. 2, lines 60-65) from the printer description files;

calling bi-directional application program interfaces from the spooler to query for a current configuration of the installable features (col. 2, lines 60-65);

mapping bi-directional schema (bi-directional characteristic, fig. 5) to a printer-specific protocol (LPR protocol, fig. 5);

generating and routing a bi-directional notification (col. 2, lines 60-65);

mapping bi-directional responses to a feature from the printer description file (printer

ready, jammed, low ink level, col. 2, lines 61-63); and

updating an application (settings may be replicated for each port, col. 5, lines 41-43) with

a current configuration.

Regarding claim 22, Sabbagh et al disclose a method of claim 21, wherein routing a bi-

directional notification comprises routing a drive printer event notification to the driver to inform

the driver of a configuration change (col. 6, lines 8-9).

Regarding claim 23, Sabbagh et al disclose a method of claim 21, wherein routing a bi-

directional notification comprises routing a find next printer change notification to an application

to allow the application to monitor and receive configuration changes automatically (calls each

printer, col. 4, lines 21-27).

Regarding claim 24, Sabbagh et al disclose a method of claim 21, further comprising

implementing a plurality of keywords including a response type keyword for designating a bi-

directional response type and a response data keyword for mapping between features of the

network printer (col. 2, lines 60-65).

Regarding claim 25, Sabbagh et al disclose a method of claim 21, further comprising

providing automatic configuration updates at a global level (settings may be replicated for each

port, col. 5, lines 41-43), at an option level (fig. 5 shows enabling/disabling options), and at a

feature level (updates to time intervals in Fig. 6).

Regarding claim 26, Sabbagh et al disclose a method claim 21, further comprising

implementing independent hardware vendor extensions for enumerating specific features

provided by a manufacturer (Xerox port monitor provides changes to the Windows operating

system setup, see Fig. 5).

Regarding claim 27, Sabbagh et al disclose a method of claim 21, further comprising implementing the bi-directional application program interfaces to provide tools for supporting a get action (get printer type performed by gui of fig. 5), a set action (set byte counting, see Fig. 5), and an enumerate action (updates to time intervals in Fig. 6).

Regarding claim 28, Sabbagh et al disclose a method of claim 21, further comprising using the port monitor for retrieving data (control flags) from a network printer database and accessing extension files from the printer description files in order to transform the data (control flags are transformed into status information).

Regarding claim 29, Sabbagh et al disclose a method of claim 28, further comprising using the bi-directional application program interfaces for returning the data retrieved by the port monitor (status of printer ready, jammed, low ink level, col. 2, lines 61-63).

Regarding claim 30, Sabbagh et al disclose a computer-readable medium having computer-executable instructions for performing the method recited in claim 21.

Regarding claim 31, Sabbagh et al disclose a method for providing extensibility for a port monitor in order to enable vendors to define new mappings using existing public bi-directional schema and extensions to existing schema, the method comprising:

permitting use of an extension file (data contained in printer manager 428, col. 5, lines 51-54) capable of describing a mapping between bi-directional values and device-specific objects (printer ready, jammed, low ink level, col. 2, lines 61-63); and

allowing implementation of the extension file to facilitate a port monitor response to a bi-directional request (col. 2, lines 60-65).

Regarding claim 33, Sabbagh et al disclose a method of claim 31, wherein the extension file comprises independent hardware vendor extensions of standard bi-directional schema (Xerox port monitor provides changes to the Windows operating system setup, see Fig. 5).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sabbagh et al

(US 6,814,510 B1) in view of Terrill et al (US 20020188646 A1).

Regarding claim 32, Sabbagh et al do not disclose that the extension file is an XML

extension file.

Terrill et al teach of a port monitor facilitating requests and replies of an XML

communication, see para. 0030.

Sabbagh et al and Terrill et al are analogous art because they are from the similar

problem solving area of ***. At the time of the invention, it would have been obvious to

a person of ordinary skill in the art to add the feature of Terrill et al to Sabbagh et al in

order to obtain an XML file of printer configuration information. The motivation for doing

so would be to an open-standard language to customize constraints.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner

should be directed to Thomas J. Lett whose telephone number is (571) 272-7464. The

examiner can normally be reached on 8-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K. Moore can be reached on (571) 272-7437. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thomas Lett
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PRIMARY EXAMINER